

Planets and IR Excesses: Preliminary Results of a Spitzer/MIPS Survey of Solar Type Stars

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As part of a large Spitzer/MIPS GTO program, we have observed 53 FGK field stars with MIPS at 24 and 70 μm looking for excesses due to “debris” disks. Of this sample, 14 are known from radial velocity studies to have 1 or more planets; the remaining 39 are not known to have planets. The overall program consists of more than 150 stars; only preliminary results are reported here. Of the 39 stars without planets, we detect 3 stars with significant excesses. Of the 14 stars with planets, we also detect 3 excesses at 70 μm . Only 1 star shows a possible excess at 24 μm . The higher rate of detection of stars with planets having excesses is suggestive that the presence of planets, like that of stellar youth, is a useful predictor of the presence of dust in a “Kuiper Belt”. However, there are stars that are either young or planet-bearing that do not show significant dust excesses at the Spitzer level.

